

NOTE ON A SECOND EXAMPLE OF DIVISION OF THE
CAVITY OF THE LEFT AURICLE INTO TWO COM-
PARTMENTS BY A FIBROUS BAND. By T. WARDROP
GRIFFITH, M.D., M.R.C.P., *Professor of Anatomy, Yorkshire
College, Leeds; Assistant Physician, General Infirmary,
Leeds.* (PLATE XXXI.)

At the meeting of the Anatomical Society held in February 1896, I showed a heart with a fibro-muscular band passing across the left auricle, which had the effect of partially dividing that cavity into two compartments,—an upper, receiving the pulmonary veins, and a lower, which communicated with the ventricle and with the auricular appendix. I have recently met with another specimen presenting so many points of resemblance to the former that I think it should be put on record as well.

The heart was obtained at the post-mortem examination of a male patient who died at the age of 48 of chronic Bright's disease. The organ was much hypertrophied, and there were slight degenerative changes at the root of the aorta and in the mitral valve, which, however, appeared to have been competent.

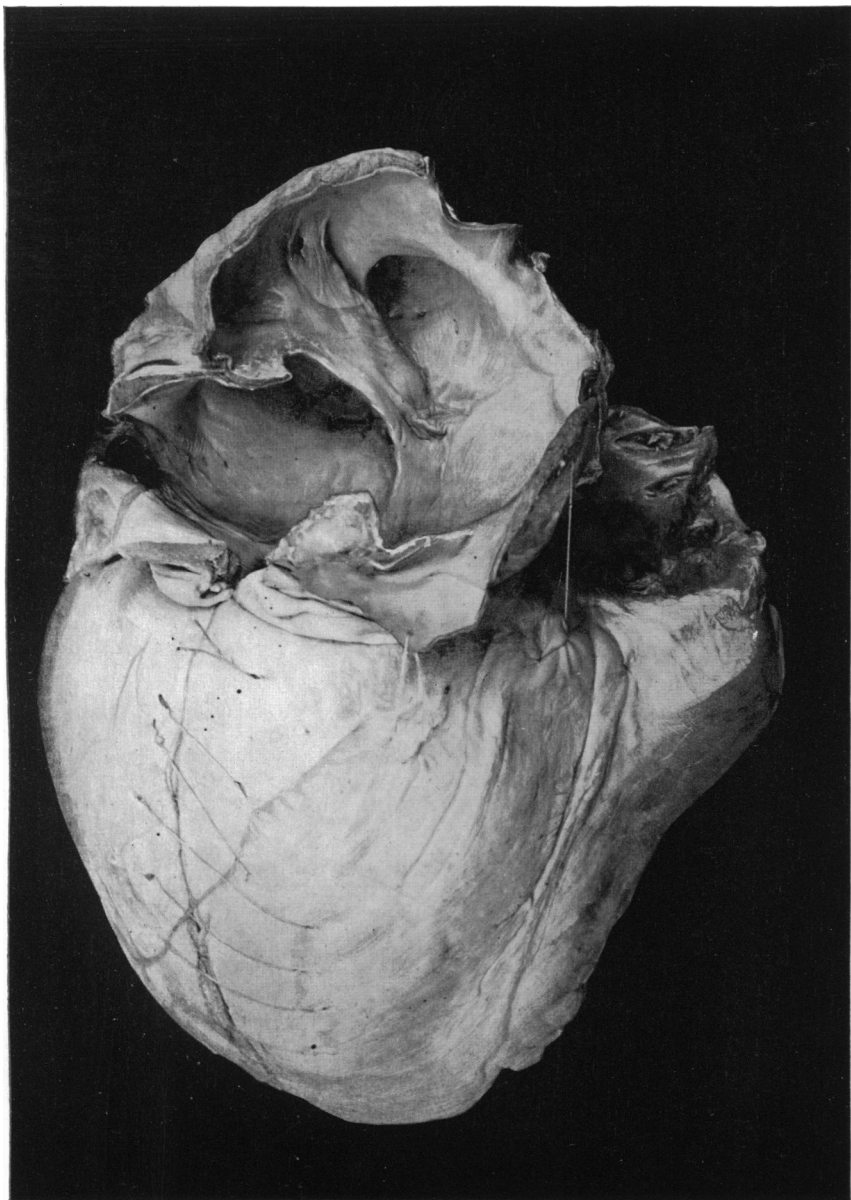
The plate in illustration of this communication is from a photograph taken by Mr Michael Teale, one of our honorary demonstrators.

The left auricle was partially divided into two compartments by a broad fibrous band, which started from the auricular septum where it was continuous with the tissue of the valvula foraminis ovalis, from which it arose by several spurs. This band passed upwards and forwards below the upper right pulmonary vein, then along the anterior and left walls of the auricle, having now a downward direction, and passing just below and in front of the left pulmonary veins, and finally becoming narrower, was lost on the posterior wall of the auricle, about one inch above the auriculo-ventricular furrow. By its concave margin, which was well defined and smooth, it formed about three-fifths of the circumference of the aperture of communication between the two compartments of the auricle, the

remaining two-fifths being formed by the auricular wall at the posterior part of the septum and the adjacent part of the posterior wall. The aperture admitted of the passage of two fingers easily. Where the band was attached to the auricular wall, it presented several small deficiencies, through which a crow quill could be passed from the upper or posterior to the lower or anterior compartment of the auricle; these were situated towards the anterior and left part, where the band was thinner than elsewhere. Into the upper compartment of the auricle there opened the four pulmonary veins, the floor of the superior right and of both the left being directly continuous with the posterior or upper aspect of the band, while the inferior vein of the right side opened into the auricle some distance behind the origin of the band from the valve of the foramen ovale. The lower compartment of the auricle was in communication with the appendix, and, of course, with the ventricle through the mitral orifice. The foramen ovale was completely closed.

In commenting on my former specimen at the meeting of the Anatomical Society, I suggested as a possible, but as I said a highly problematical, explanation of the presence of the band, that there had been a failure in the complete amalgamation of that part of the auricle which is said to be formed from the confluent portions of the pulmonary veins and that derived from the left-hand division of the common auricle of the embryonic heart. This view did not meet with much acceptance at the meeting; and it was indeed advanced by me in a very tentative manner, and with no very strong conviction of its accuracy.

At the same meeting Dr Rolleston showed a band in the left auricle of a boy's heart, which was round and fibrous and crossed over the orifice of the mitral valve, but this was attached to the wall of the auricle *below* the appendix and *below* the level of the fossa ovalis. He also referred to Dr J. K. Fowler's specimen (*Path. Trans.*, 1882) of a band $\frac{3}{4}$ -inch wide, with its edges vertical, which was attached to the septal wall, being here continuous with the membrane forming the fossa ovalis. This band was regarded by Dr Fowler as an overgrowth of the valvula foraminis ovalis, swept by the blood-



PROF. WARDROP GRIFFITH.

stream to the outer wall of the auricle, where it had become adherent.

In writing an account of my specimen, which I did after perusing the account of Dr Fowler's case, I came to the conclusion that he was correct in regarding the band as a redundancy of the tissue of the valve of the foramen ovale, and that my specimen was an example of the same thing; but I expressed my belief that in both cases we had to do with a mere exaggeration of a state of affairs not usually regarded as abnormal, viz., the presence of retinacula proceeding from the margins of the valve of the foramen ovale, which might or might not be patent.

At the meeting of the Society held at Cambridge in 1899, Professor Sidney Martin showed a specimen presenting a very strong resemblance to mine, and advanced the same explanation which I had, with great hesitation, given in 1896. Dr Rolleston's specimen showed a rounded band, and its attachments were different. I have not had the privilege of examining Dr Fowler's specimen, but his description would lead me to think it resembled my specimen rather than Dr Rolleston's; between my two specimens and Dr Sidney Martin's there is so strong a resemblance that I cannot regard the condition as in any way due to pathological causes, of which, indeed, there is no evidence, but I think it must depend on some such anomaly of development as has been suggested by Dr Martin and myself. Perhaps, when the development of the pulmonary veins and their manner of junction with the left auricle is more fully understood, the explanation may become less uncertain.